
Subject: make for PndTools/MVA

Posted by [donghee](#) on Tue, 08 Jan 2013 11:21:12 GMT

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Happy new year to all PANDA family!

I'm trying to do MVA under PndTools and now have a trouble to build source for that.

trunk pandaroot was sucessfully installed with fairsoft sep12 version and bug free for example macros.

and then I am going to make for PndTools/MVA/, which is MVA repository in PANDAroot.

few source files are built without any errors.

but at the main function in build/classifyStdKnn.o the procedure is stopped by linking problem(?).

I tried it with two different library path like below, but doesn't help.

export

```
LD_LIBRARY_PATH=${ROOTSYS}/lib${LD_LIBRARY_PATH:+:$LD_LIBRARY_PATH}  
export LD_LIBRARY_PATH=${ROOTSYS}/tools/root/lib:${LD_LIBRARY_PATH}
```

Could you correct me the way to do make for MVA?

Thank you.

Quote:

```
kang@dkang-laptop:~/GSI/pandaroot_oct12/PndTools/MVA$ make  
make: Entering directory `/home/kang/GSI/pandaroot_oct12/PndTools/MVA'  
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc  
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror  
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops  
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native  
-mfpmath=sse -msse3 -mstackrealign -pthread -m64  
-I/home/kang/GSI/fairsoft_sep12/include/root -I. -c PndMvaUtil.cpp -o ./build/PndMvaUtil.o  
Done building: PndMvaUtil  
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc  
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror  
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops  
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native  
-mfpmath=sse -msse3 -mstackrealign -pthread -m64  
-I/home/kang/GSI/fairsoft_sep12/include/root -I. -c PndMvaTools.cpp -o ./build/PndMvaTools.o  
Done building: PndMvaTools  
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc  
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror  
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops  
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native  
-mfpmath=sse -msse3 -mstackrealign -pthread -m64  
-I/home/kang/GSI/fairsoft_sep12/include/root -I. -c PndMvaVarPCATransform.cpp -o  
./build/PndMvaVarPCATransform.o  
Done building: PndMvaVarPCATransform  
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
```

```
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -l./ -c PndMvaDataSet.cpp -o
./build/PndMvaDataSet.o
Done building: PndMvaDataSet
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -l./ -c PndMvaClassifier.cpp -o
./build/PndMvaClassifier.o
Done building: PndMvaClassifier
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -l./ -c PndMvaTrainer.cpp -o
./build/PndMvaTrainer.o
Done building: PndMvaTrainer
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -l./ -c CreateRandomDataSet.cpp -o
./build/CreateRandomDataSet.o
Done building: CreateRandomDataSet
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -l./ -c examplePCATransform.cpp -o
./build/examplePCATransform.o
Done building: examplePCATransform
make -C KNN;
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -l./ -l.. -c PndStdKnnClassify.cpp -o
./build/PndStdKnnClassify.o
Done building: PndStdKnnClassify
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
```

```
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -c classifyStdKnn.cpp -o
./build/classifyStdKnn.o
Done building: classifyStdKnn
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -c PndPrzWindowClassify.cpp -o
./build/PndPrzWindowClassify.o
Done building: PndPrzWindowClassify
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -c classifyPrzWin.cpp -o
./build/classifyPrzWin.o
Done building: classifyPrzWin
make -C LVQ;
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -I../Clusters/ -c PndLVQClassify.cpp -o
./build/PndLVQClassify.o
Done building: PndLVQClassify
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -I../Clusters/ -c PndLVQTrain.cpp -o
./build/PndLVQTrain.o
Done building: PndLVQTrain
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -I../Clusters/ -c LVQtrain.cpp -o
./build/LVQtrain.o
Done building: LVQtrain
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -I../Clusters/ -c LVQclassify.cpp -o
./build/LVQclassify.o
```

Done building: LVQclassify
make -C TMVAkd_KNN;
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -c PndKnnTrain.cpp -o
./build/PndKnnTrain.o
Done building: PndKnnTrain
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -c PndKnnClassify.cpp -o
./build/PndKnnClassify.o
Done building: PndKnnClassify
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -c PndProjectedKNN.cpp -o
./build/PndProjectedKNN.o
Done building: PndProjectedKNN
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -c KnnClassify.cpp -o
./build/KnnClassify.o
Done building: KnnClassify
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -c KnnClassifyModified.cpp -o
./build/KnnClassifyModified.o
Done building: KnnClassifyModified
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I.. -I.. -c KnnTrain.cpp -o ./build/KnnTrain.o
Done building: KnnTrain
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops

```

-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-l/home/kang/GSI/fairsoft_sep12/include/root -l. -l.. -c Prclassify.cpp -o ./build/Prclassify.o
Done building: Prclassify
make -C Clusters;
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-l/home/kang/GSI/fairsoft_sep12/include/root -l. -l.. -c PndMvaCluster.cpp -o
./build/PndMvaCluster.o
Done building: PndMvaCluster
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-l/home/kang/GSI/fairsoft_sep12/include/root -l. -l.. -c exampleCluster.cpp -o
./build/exampleCluster.o
Done building: exampleCluster
make -C TMVA_MCL;
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-l/home/kang/GSI/fairsoft_sep12/include/root -l. -l.. -c PndMultiClassMlpTrain.cpp -o
./build/PndMultiClassMlpTrain.o
Done building: PndMultiClassMlpTrain
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-l/home/kang/GSI/fairsoft_sep12/include/root -l. -l.. -c PndMultiClassMlpClassify.cpp -o
./build/PndMultiClassMlpClassify.o
Done building: PndMultiClassMlpClassify
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-l/home/kang/GSI/fairsoft_sep12/include/root -l. -l.. -c PndMultiClassBdtTrain.cpp -o
./build/PndMultiClassBdtTrain.o
Done building: PndMultiClassBdtTrain
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-l/home/kang/GSI/fairsoft_sep12/include/root -l. -l.. -c PndMultiClassBdtClassify.cpp -o

```

```
..../build/PndMultiClassBdtClassify.o
Done building: PndMultiClassBdtClassify
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I. -I.. -c mlpTrain.cpp -o .../build/mlpTrain.o
Done building: mlpTrain
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I. -I.. -c mlpClassify.cpp -o .../build/mlpClassify.o
Done building: mlpClassify
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I. -I.. -c bdtTrain.cpp -o .../build/bdtTrain.o
Done building: bdtTrain
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -pthread -m64
-I/home/kang/GSI/fairsoft_sep12/include/root -I. -I.. -c bdtClassify.cpp -o .../build/bdtClassify.o
Done building: bdtClassify
```

=+++++ Linking example applications. +++++=

```
g++ -W -Wall -Wextra -Wshadow -Wredundant-decls -Wnormalized=nfc
-Wdisabled-optimization -Woverlength-strings -Winvalid-pch -Wfloat-equal -Werror
-fdiagnostics-show-option -fdiagnostics-show-location=every-line -O3 -fopenmp -funroll-loops
-fsplit-ivs-in-unroller -fvariable-expansion-in-unroller -march=native -mtune=native
-mfpmath=sse -msse3 -mstackrealign -L/home/kang/GSI/fairsoft_sep12/lib/root -ICore -ICint
-IRIO -INet -IHist -IGraf -IGraf3d -IGpad -ITree -IRint -IPostscript -IMatrix -IPhysics -IMathCore
-IThread -pthread -Im -Idl -rdynamic -ITMVA -ITreePlayer -IMinuit -IMLP -IXMLIO -fopenmp
build/classifyStdKnn.o build/PndStdKnnClassify.o build/PndMvaClassifier.o \
build/PndMvaUtil.o build/PndMvaDataSet.o build/PndMvaVarPCATransform.o
build/PndMvaTools.o \
-o build/classifyStdKnn
build/classifyStdKnn.o: In function `main':
classifyStdKnn.cpp:(.text.startup+0x37e): undefined reference to `TStopwatch::TStopwatch()'
classifyStdKnn.cpp:(.text.startup+0x39d): undefined reference to `TStopwatch::Start(bool)'
classifyStdKnn.cpp:(.text.startup+0x96e): undefined reference to `TStopwatch::Stop()'
classifyStdKnn.cpp:(.text.startup+0x97b): undefined reference to `TStopwatch::Stop()'
classifyStdKnn.cpp:(.text.startup+0x988): undefined reference to `TStopwatch::RealTime()'
classifyStdKnn.cpp:(.text.startup+0x99a): undefined reference to `TStopwatch::CpuTime()'
classifyStdKnn.cpp:(.text.startup+0x13f3): undefined reference to `vtable for TStopwatch'
```

classifyStdKnn.cpp:(.text.startup+0x13f8): undefined reference to `TObject::~TObject()'
classifyStdKnn.cpp:(.text.startup+0x18f9): undefined reference to `vtable for TStopwatch'
classifyStdKnn.cpp:(.text.startup+0x18fe): undefined reference to `TObject::~TObject()'
build/classifyStdKnn.o: In function `__GLOBAL__sub_I_main':
classifyStdKnn.cpp:(.text.startup+0x1ea1): undefined reference to
`TVersionCheck::TVersionCheck(int)'
build/PndStdKnnClassify.o: In function
`__GLOBAL__sub_I_ZN17PndStdKnnClassifyC2ERKSsRKSt6vectorISsSalSsEES6_':
PndStdKnnClassify.cpp:(.text.startup+0x31): undefined reference to
`TVersionCheck::TVersionCheck(int)'
build/PndMvaClassifier.o: In function
`__GLOBAL__sub_I_ZN16PndMvaClassifierC2ERKSsRKSt6vectorISsSalSsEES6_':
PndMvaClassifier.cpp:(.text.startup+0x31): undefined reference to
`TVersionCheck::TVersionCheck(int)'
build/PndMvaDataSet.o: In function `PndMvaDataSet::ValidateWeightFile()':
PndMvaDataSet.cpp:(.text+0x46d): undefined reference to `TFile::TFile(char const*, char
const*, char const*, int)'
PndMvaDataSet.cpp:(.text+0x47f): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x49d): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x4bb): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x4cf): undefined reference to `TObjArray::GetAbsLast() const'
PndMvaDataSet.cpp:(.text+0x4de): undefined reference to `TObjArray::GetAbsLast() const'
PndMvaDataSet.cpp:(.text+0x4f0): undefined reference to `TObjArray::GetAbsLast() const'
PndMvaDataSet.cpp:(.text+0x544): undefined reference to ` TString::TString(TString const&)'
PndMvaDataSet.cpp:(.text+0x577): undefined reference to ` TString::~TString()'
PndMvaDataSet.cpp:(.text+0x61b): undefined reference to ` TString::TString(TString const&)'
PndMvaDataSet.cpp:(.text+0x671): undefined reference to ` TString::~TString()'
PndMvaDataSet.cpp:(.text+0x6c9): undefined reference to ` TString::~TString()'
PndMvaDataSet.cpp:(.text+0x6f8): undefined reference to ` TString::TString(TString const&)'
PndMvaDataSet.cpp:(.text+0x74e): undefined reference to ` TString::~TString()'
PndMvaDataSet.cpp:(.text+0x772): undefined reference to ` TString::TString(TString const&)'
PndMvaDataSet.cpp:(.text+0x895): undefined reference to ` TString::TString(TString const&)'
PndMvaDataSet.cpp:(.text+0x8b6): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x8c6): undefined reference to ` TString::~TString()'
PndMvaDataSet.cpp:(.text+0x920): undefined reference to ` TString::TString(TString const&)'
PndMvaDataSet.cpp:(.text+0x941): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x951): undefined reference to ` TString::~TString()'
PndMvaDataSet.cpp:(.text+0x982): undefined reference to ` TString::TString(TString const&)'
PndMvaDataSet.cpp:(.text+0x9a3): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x9b3): undefined reference to ` TString::~TString()'
PndMvaDataSet.cpp:(.text+0x9d9): undefined reference to `TFile::Close(char const*)'
PndMvaDataSet.cpp:(.text+0x9e6): undefined reference to `TFile::~TFile()'
PndMvaDataSet.cpp:(.text+0xa41): undefined reference to ` TString::TString(TString const&)'
PndMvaDataSet.cpp:(.text+0xa76): undefined reference to ` TString::~TString()'
PndMvaDataSet.cpp:(.text+0xb83): undefined reference to `TFile::~TFile()'
PndMvaDataSet.cpp:(.text+0xe41): undefined reference to ` TString::~TString()'
PndMvaDataSet.cpp:(.text+0xe6d): undefined reference to ` TString::~TString()'
PndMvaDataSet.cpp:(.text+0xe87): undefined reference to ` TString::~TString()'
PndMvaDataSet.cpp:(.text+0xe9c): undefined reference to ` TString::~TString()'
build/PndMvaDataSet.o: In function `PndMvaDataSet::WriteDataSet(std::string const&)':
PndMvaDataSet.cpp:(.text+0x1812): undefined reference to `TFile::TFile(char const*, char
const*, char const*, int)'

PndMvaDataSet.cpp:(.text+0x1c78): undefined reference to `TTree::TTree(char const*, char const*, int)'
PndMvaDataSet.cpp:(.text+0x1cf5): undefined reference to `TTree::Branch(char const*, void*, char const*, int)'
PndMvaDataSet.cpp:(.text+0x2033): undefined reference to `TTree::Fill()'
PndMvaDataSet.cpp:(.text+0x205f): undefined reference to `TTree::Write(char const*, int, int)'
PndMvaDataSet.cpp:(.text+0x206c): undefined reference to `TTree::~TTree()'
PndMvaDataSet.cpp:(.text+0x24ef): undefined reference to `TTree::TTree(char const*, char const*, int)'
PndMvaDataSet.cpp:(.text+0x256b): undefined reference to `TTree::Branch(char const*, void*, char const*, int)'
PndMvaDataSet.cpp:(.text+0x2736): undefined reference to `TTree::Fill()'
PndMvaDataSet.cpp:(.text+0x2749): undefined reference to `TTree::Write(char const*, int, int)'
PndMvaDataSet.cpp:(.text+0x27e1): undefined reference to `TTree::TTree(char const*, char const*, int)'
PndMvaDataSet.cpp:(.text+0x2863): undefined reference to `TTree::Branch(char const*, void*, char const*, int)'
PndMvaDataSet.cpp:(.text+0x2a2e): undefined reference to `TTree::Fill()'
PndMvaDataSet.cpp:(.text+0x2a41): undefined reference to `TTree::Write(char const*, int, int)'
PndMvaDataSet.cpp:(.text+0x2a53): undefined reference to `TFile::Close(char const*)'
PndMvaDataSet.cpp:(.text+0x2a60): undefined reference to `TTree::~TTree()'
PndMvaDataSet.cpp:(.text+0x2a6d): undefined reference to `TTree::~TTree()'
PndMvaDataSet.cpp:(.text+0x2ab5): undefined reference to `TFile::~TFile()'
PndMvaDataSet.cpp:(.text+0x2b09): undefined reference to `TTree::~TTree()'
PndMvaDataSet.cpp:(.text+0x2b37): undefined reference to `TFile::~TFile()'
PndMvaDataSet.cpp:(.text+0x2c1f): undefined reference to `TTree::~TTree()'
PndMvaDataSet.cpp:(.text+0x2c2c): undefined reference to `TTree::~TTree()'
build/PndMvaDataSet.o: In function `PndMvaDataSet::Trim()':
PndMvaDataSet.cpp:(.text+0x521f): undefined reference to `TRandom3::TRandom3(unsigned int)'
PndMvaDataSet.cpp:(.text+0x54e5): undefined reference to `TRandom::Uniform(double, double)'
PndMvaDataSet.cpp:(.text+0x6368): undefined reference to `TRandom3::~TRandom3()'
PndMvaDataSet.cpp:(.text+0x648c): undefined reference to `TRandom3::~TRandom3()'
build/PndMvaDataSet.o: In function `PndMvaDataSet::ReadInput()':
PndMvaDataSet.cpp:(.text+0x67d1): undefined reference to `TFile::TFile(char const*, char const*, char const*, int)'
PndMvaDataSet.cpp:(.text+0x6876): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x6cce): undefined reference to `TClass::GetClass(std::type_info const&, bool, bool)'
PndMvaDataSet.cpp:(.text+0x6ce6): undefined reference to
`TDataType::GetType(std::type_info const&)'
PndMvaDataSet.cpp:(.text+0x7054): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x746f): undefined reference to `TClass::GetClass(std::type_info const&, bool, bool)'
PndMvaDataSet.cpp:(.text+0x7487): undefined reference to
`TDataType::GetType(std::type_info const&)'
PndMvaDataSet.cpp:(.text+0x756c): undefined reference to `TFile::~TFile()'
PndMvaDataSet.cpp:(.text+0x774a): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x7b83): undefined reference to `TClass::GetClass(std::type_info const&, bool, bool)'
PndMvaDataSet.cpp:(.text+0x7b9b): undefined reference to

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`TDataType::GetType(std::type_info const&)
PndMvaDataSet.cpp:(.text+0x7daa): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x7dc5): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x7df4): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x7e41): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaDataSet.cpp:(.text+0x7ea5): undefined reference to `TFile::Close(char const*)'
PndMvaDataSet.cpp:(.text+0x7eb2): undefined reference to `TFile::~TFile()'
build/PndMvaDataSet.o: In function
`_GLOBAL__sub_I_ZN13PndMvaDataSetC2ERKSt6vectorISt4pairISsPS0_IIfSalfEEE
SalS5_EERKS0_ISsSalSsEESD_7AppType':
PndMvaDataSet.cpp:(.text.startup+0x31): undefined reference to
`TVersionCheck::TVersionCheck(int)'
build/PndMvaTools.o: In function `readEvents(char const*, std::vector<std::string,
std::allocator<std::string> > const&, std::vector<std::string, std::allocator<std::string> > const&,
std::vector<std::pair<std::string, std::vector<float, std::allocator<float> >>*>,
std::allocator<std::pair<std::string, std::vector<float, std::allocator<float> >> >>&)'
PndMvaTools.cpp:(.text+0xa10): undefined reference to `TFile::TFile(char const*, char const*,
char const*, int)'
PndMvaTools.cpp:(.text+0xa93): undefined reference to `TDirectoryFile::Get(char const*)'
PndMvaTools.cpp:(.text+0xfde): undefined reference to `TClass::GetClass(std::type_info
const&, bool, bool)'
PndMvaTools.cpp:(.text+0xff6): undefined reference to `TDataType::GetType(std::type_info
const&)'
PndMvaTools.cpp:(.text+0x1305): undefined reference to `TFile::Close(char const*)'
PndMvaTools.cpp:(.text+0x1312): undefined reference to `TFile::~TFile()'
PndMvaTools.cpp:(.text+0x135d): undefined reference to `TFile::~TFile()'
build/PndMvaTools.o: In function
`_GLOBAL__sub_I_Z8printRocRKSt6vectorI9ROCPPointsSalS0_EE':
PndMvaTools.cpp:(.text.startup+0x31): undefined reference to
`TVersionCheck::TVersionCheck(int)'
build/PndMvaVarPCATransform.o: In function
`PndMvaVarPCATransform::Transform(std::vector<float, std::allocator<float> > const&) const':
PndMvaVarPCATransform.cpp:(.text+0x59e): undefined reference to `kAssertMsg'
PndMvaVarPCATransform.cpp:(.text+0x5bf): undefined reference to `Fatal(char const*, char
const*, ...)'
build/PndMvaVarPCATransform.o: In function
`PndMvaVarPCATransform::ComputePrincipalComponents(std::vector<std::pair <std::string,
std::vector<float, std::allocator<float> >>, std::allocator<std::pair<std::string, std::vector<float,
std::allocator<float> >> > > const&)''
PndMvaVarPCATransform.cpp:(.text+0x742): undefined reference to
`TPrincipal::TPrincipal(int, char const*)'
PndMvaVarPCATransform.cpp:(.text+0x911): undefined reference to
`TPrincipal::AddRow(double const*)'
PndMvaVarPCATransform.cpp:(.text+0x936): undefined reference to
`TPrincipal::MakePrincipals()'
PndMvaVarPCATransform.cpp:(.text+0x940): undefined reference to
`TStorage::ObjectAlloc(unsigned long)'
PndMvaVarPCATransform.cpp:(.text+0x950): undefined reference to
`TVectorT<double>::TVectorT(TVectorT<double> const&)'
PndMvaVarPCATransform.cpp:(.text+0x95e): undefined reference to
`TStorage::ObjectAlloc(unsigned long)'
PndMvaVarPCATransform.cpp:(.text+0x971): undefined reference to
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`TMatrixT<double>::TMatrixT(TMatrixT<double> const&)'  
PndMvaVarPCATransform.cpp:(.text+0xa08): undefined reference to `TPrincipal::~TPrincipal()'  
PndMvaVarPCATransform.cpp:(.text+0xa5b): undefined reference to `TPrincipal::~TPrincipal()'  
PndMvaVarPCATransform.cpp:(.text+0xa6e): undefined reference to ` TObject::operator  
delete(void*)'  
PndMvaVarPCATransform.cpp:(.text+0xa7b): undefined reference to ` TObject::operator  
delete(void*)'  
build/PndMvaVarPCATransform.o: In function  
`PndMvaVarPCATransform::SetMeanVector(TVectorT<double> const&)':  
PndMvaVarPCATransform.cpp:(.text+0xb4f): undefined reference to  
`TStorage::ObjectAlloc(unsigned long)'  
PndMvaVarPCATransform.cpp:(.text+0xb5d): undefined reference to  
`TVectorT<double>::TVectorT(TVectorT<double> const&)'  
PndMvaVarPCATransform.cpp:(.text+0xb7f): undefined reference to ` TObject::operator  
delete(void*)'  
build/PndMvaVarPCATransform.o: In function  
`PndMvaVarPCATransform::SetEigenVectors(TMatrixT<double> const&)':  
PndMvaVarPCATransform.cpp:(.text+0xbaf): undefined reference to  
`TStorage::ObjectAlloc(unsigned long)'  
PndMvaVarPCATransform.cpp:(.text+0xbbd): undefined reference to  
`TMatrixT<double>::TMatrixT(TMatrixT<double> const&)'  
PndMvaVarPCATransform.cpp:(.text+0xbdf): undefined reference to ` TObject::operator  
delete(void*)'  
build/PndMvaVarPCATransform.o: In function  
`_GLOBAL__sub_I__ZN21PndMvaVarPCATransformC2Ev':  
PndMvaVarPCATransform.cpp:(.text.startup+0x31): undefined reference to  
`TVersionCheck::TVersionCheck(int)'  
collect2: error: ld returned 1 exit status  
make: *** [examples] Error 1  
make: Target `all' not remade because of errors.  
make: Leaving directory `/home/kang/GSI/pandaroot_oct12/PndTools/MVA'
```
